



# COLLEGE OF INFORMATION STUDIES

**MIM** | MASTER OF INFORMATION  
MANAGEMENT

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# CAPSTONE SHOWCASE

*SPRING 2021*

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Monday, May 10, 2021  
6:30 PM Eastern Time

# MIM CAPSTONE SHOWCASE

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## **Welcome and Opening Remarks**

*David Loshin, Program Director*

*Keith Marzullo, Dean*

## **Student Presentations**

*Aishwarya Biddatanda Pradeep*

*Wenshan Cao*

*Yonghao Chen*

*Whilmina Dsouza*

*Yuan Fang*

*Gaurav Hasija*

*Kanishka Jain*

*Shreeya Kotasthane*

*Yannan Liu*

*Sakshi Nanda*

*Kishore Palaniraja*

*Neviya Prakash*

*Shaoli Qian*

*Yanzhi Shen*

*Mayhah Roma Suri*

## **Closing Remarks**

*David Loshin, Program Director*

*Michelle Simon, Program Manager*

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# STUDENT PROJECTS

**Wenshan Gao | Yuan Fang | Sakshi Nanda**

*Client: Maryland Center for Computing Education*

*Project: Data Visualization and Reporting Project for Maryland Center for Computing Education (MCCE)*

The Maryland Center for Computing Education (MCCE) provides resources and opportunities for computer science education in the school districts and universities. To understand the level of engagement and representation of the participating schools, MCCE collects feedback from the participants in the form of surveys. They would need assistance in summarization, reporting, and presentation of this data. Also, as this will be an annual process, there is a need to standardize and streamline the process for data collection, storage, analysis, and preparation of survey data. This would help MCCE in communicating their value and learnings to a diverse audience of stakeholders and evaluate the effectiveness of their training, make business process improvements, and plan for future workshops.

**Shreeya Kotasthane | Neviya Prakash | Yanzhi Shen**

*Client: UMD iSchool*

*Project: MIM Career Intelligence*

The MIM faculty at the UMD iSchool is interested in identifying the current trend of MIM-related skills in order to ensure the curriculum is up to date. The faculty used to visit career websites and manually type in keywords related to Information Science. They would see the detailed job descriptions to identify the key skill terms and how the job requirements have changed from their last searching memory. However, the searching process was redundant and could be improved by automation. Our solution entails building an engine that would report the most frequently listed skills in the job descriptions of MIM-related roles.

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**Yonghao Chen | Kishore Palaniraja | Aishwarya Biddatanda Pradeep**

*Client: Urban Studies & Planning department*

*Project: IoT Stormwater Integration*

The Urban Studies & Planning department in the School of Architecture has deployed three IoT outfall sensors on UMD's campus to collect a variety of water quality and quantity data for improved stormwater management. This necessitated efficient data collection, transformation, and storage mechanism to aid further analysis and visualization of Stormwater data.

In collaboration with the client, our team developed a solution to fully automate the process of sensor data retrieval, cleaning and storage while scheduling the entire process to run at fixed intervals without any manual intervention. We achieved this by utilizing on-cloud offerings like AWS RDS for data storage, AWS Lambda to execute the python script and CloudWatch to schedule incremental retrieval of sensor data from the device server. Additionally, we demonstrated the efficiency of this solution by connecting to a data analysis and visualization platform like Tableau that consumed IoT data in real-time.

**Gaurav Hasija | Kanishka Jain | Yannan Liu**

*Client: WSSC*

*Project: WSSC water*

Data-driven decisions are vital for today's businesses. WSSC is interested in evolving an enterprise-wide operations dashboard reflecting measures of key metrics accumulated from different operations groups. This project aims to devise and document a process for engaging information consumers to define performance measures and associated metrics and to solicit and document requirements for reporting and analysis, design guidance/documents for staff helping write requirements for dashboard, and develop a request mapping sheet for best practice.

**Whilmina Dsouza | Shaoli Qian | Mayhah Roma Suri**

*Client: Bozzuto*

*Project: Bozzuto Data Warehouse*

We are developing a data governance process for integrating external data sources into Bozzuto's data warehouse to facilitate more robust analytics that support business intelligence and decision-making.

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# THANK YOU, CAPSTONE CLIENTS!

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**Yvonne Carney**  
WSSC Water

**Mark Franceski**  
Bozzuto

**Megean Garvin, Ph.D.**  
Maryland Center for Computing Education

**Marccus D Hendricks**  
UMD Urban Studies & Planning Department

**David Loshin**  
UMD iSchool

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